

factory here exhibited some excellent specimens of "raised" copper work, in the shape of urns, vases, and other vessels, at the Great Exhibition, and these have been purchased by the Government for the Museum of Economic Geology. In these works the varied size of the vessels is produced wholly by the hammer, instead of by brazing parts together, which in bronze work causes a mark. Their bath, for which they received a prize medal, is very complete: it can be fitted up for about 20l. with boiler and everything necessary, and is heated, they say, with about two-penceworth of charcoal. Some of our readers may find this intimation useful. Their valve "closets" are also worth consideration: the introduction of vulcanized Indian rubber has rendered them very efficient.

#### FIREPROOF HOUSES.

THE account in your last number of Boydell's Fireproof Construction has called to my mind a very similar method which I saw adopted for the floors of many houses in Paris, in the autumn of 1847. The system of M. Vaux, to whom the invention is attributed, consists in having joists of wrought-iron about  $\frac{1}{2}$  inch thick, the depth from 4 to 7 or 8 inches, according to the bearing: these joists, which are slightly arched, are placed from 2 feet to 2 feet 6 inches apart, the extremities resting in the walls, having a termination thus—: connecting these are short interties of bar-iron  $\frac{1}{2}$  inch square, placed the same distance apart as the joists, which run in a transverse direction, the ends being bent to lap over the joists, thus forming a species of iron netting over the whole floor. Lastly, between each of the joists and parallel with them, two bars,  $\frac{1}{2}$  inch square, are laid resting on the interties.

An account of M. Vaux's system was published in Jan. 1848, in No. 18 of the *Moniteur des Architectes*, a species of French BUILDER, which ceased soon after the revolution. In this article is given an account of some experiments made before a commission of architects appointed by the Minister of Public Works, which appear to have been highly satisfactory. E. H. M.

#### REVISION OF THE METROPOLITAN BUILDINGS BILL.

JUDGING from the quiet that prevails, little seems to be thought of the necessity for any alteration of the Metropolitan Buildings Act, either as regards such of its provisions and rules as have for their immediate object the regulation of the use and construction of buildings, or those which relate to owners of adjoining properties, and to the constitution of the tribunal for the superintendence and administration of the Act. I presume, however, that in the ensuing session of Parliament the chief commissioner of works, &c., will bring forward his Bill of last session; and such, probably, being the case, I would take this mode of suggesting that the different interests concerned, if they are dissatisfied with the Act now in force, should at once ascertain from Lord Seymour whether it is his lordship's intention to take any further steps with his Bill, and in the event of its being intended to re-introduce the Bill, that the several parties should, without further loss of time, proceed to meet and examine the Bill, and make known by publication or transmission to his lordship their views and suggestions thereon. It is only by some such mode of procedure as this that we can expect to have matters settled next session, and I think that it is as much to the interest of the parties concerned as it is due to Lord Seymour that any objectionable matters should be pointed out to his lordship in such time that his lordship may have a sufficient opportunity for a full inquiry into and consideration of the subject; for it can hardly be expected of Lord Seymour or any other minister that he should be possessed by inspiration of sufficient practical knowledge of, or sufficient information on, the several matters dealt with in and by the Metropolitan Buildings Act, to enable him to frame such a set of provisions as are either requisite or would accomplish their purpose with certainty or satisfaction. I would also take the liberty to suggest

that the appointment of a committee of such, or nearly such, a constitution as the one appointed by the Earl of Carlisle to inquire into and report upon the present Metropolitan Buildings Act, might, with advantage, be at once made by Lord Seymour to sit and report upon his Bill. I would, however, before I conclude, beg to make another suggestion, and that is, that it does not follow, as a matter of course, because an Act of Parliament has been in operation some five or seven years, that it requires amendment, nor because it may be faulty in parts and require repair, that therefore the whole structure should be demolished and reconstructed from a totally different design. A. B. C.

#### Miscellaneous.

VAUXHALL-BRIDGE COMPANY.—On 6th inst. the half-yearly general meeting of this company was held. Mr. Parnell took the chair. The report announced an increase in receipts of tolls during six months ending October, 1851, of 2,193l. 12s. 5d., the tolls in last year being 5,006l. 11s. 6d., and the present 7,200l. 4s. 1d. This increase was attributed principally to augmented traffic to and from the Exhibition. The receipts from the piers for the same period had amounted to 383l. 5s. 1d., and their expenses for repairs, &c., were 131l. 17s.; leaving a profit of 251l. 8s. 1d. The financial statements showed the total receipts from all sources for the half-year, including a balance of 1,683l. 14s. 3d., amounted to 9,391l. 4s. 2d.; while the expenditure fell short of that amount by 4,264l. 14s. 2d. The report was received, and unanimously adopted. The chairman said that they had lowered the tolls on two-horse carriages, and the result was favourable. The condition of the bridge itself was all that could be desired. All the abutments had been built upon piles, and in order to make the bridge perfectly secure, Mr. Walker, the constructor, had resolved, as if he anticipated what had since happened to the other bridges, to go down with the foundation to the blue clay, which had accordingly been done, and the bridge was as sound now as the first day of its erection. The fault of the other bridges was, that their foundations did not go down to the blue clay. Until they reached the blue clay they could not stop the sinking of the pier at Blackfriars-bridge: when it did, however, they expected to be able to save the structure, but he thought their chance of so doing was extremely problematical. The rapid rush of the water and constant passing and re-passing of steamers, had also an injurious effect upon the piers of bridges, and at Waterloo-bridge they had been compelled to sink round some of the piers a great quantity of stones. The resolution for giving a dividend of 18s. per share was then carried *nem. con.*

EDINBURGH PHILOSOPHICAL INSTITUTION.—The session of this popular institution has just opened under highly favourable circumstances. The opening lecture was delivered by Sir David Brewster, in the Queen-street Hall, to a crowded audience, on 11th inst. In course of a rapid and comprehensive glance throughout the regions of science and art, not forgetting that with the "ill-chosen name, electro-biology," now exciting great interest in Edinburgh,—not exactly the electro-biology of Smee, but that of the mesmerists, zoo-magnetists, diamagnetists, or whatever they may yet turn out to be,—Sir David referred to the merits of such associations as that he was then addressing. It was not till the beginning of the present century, he remarked, that measures were taken to extend institutions for the advancement of science, literature, and art. This arose from the urgencies of the war having previously absorbed much of the national genius. These institutions had done much to prepare the public mind for that display of the industry of all nations recently afforded in the Great Exhibition. That was not the place nor the occasion to do more than allude to this matter; but he was certain that the result of it would be to impress the necessity of a more general cultivation of science and art upon thousands

whose minds could only be reached through their eye, and who never before felt a sympathy for the inventor's genius and the artist's skill. Then adverting to the importance of some comprehensive plan for imparting popular instruction in science, literature, and art, he gave it as his opinion that every city and provincial town should have its philosophical institution and school, with its museum and collection of models,—to the latter of which he thought that great national depository, the British Museum, might contribute its duplicates, which neither added to its beauty nor increased its interest.

WATER SUPPLY.—Notices have been served, in name of Government, on all the different water companies who now supply the metropolis, that a Bill will be introduced in the ensuing session of Parliament, to repeal the whole of the Acts whereby they are constituted. The Bill to be introduced provides, it appears, for a constant supply to every habitation on the principle of high-pressure, under the control of local boards, elected by the ratepayers; the cost of the supply and management to be borne by a rate on house property.—The Henley-on-Thames and London Aqueduct scheme is also announced for renewed discussion in Parliament.—Similar notice has been given of application to Parliament to incorporate the Lee River Water Company for service of the metropolis north of the Thames; and the New River Company are in the field with notice of their Bill to improve supply, and to alter river courses, make reservoirs, &c.

OMNIBUS REFORM.—It seems to be more reasonable that the public should be charged according to the length of distance they go (either a penny or twopence per mile,—the former is quite sufficient), instead of from place to place. Some will ask how is your distance to be known? Why, in this way. In the omnibus should be an apparatus for recording the distance travelled. Then let every conductor be furnished with a number of "dial tickets," as they may be called, with a dial printed thereon, the same as the dial in the omnibus; and there may be also marked on the ticket the name and number of the omnibus and of the conductor also; as each passenger gets in, let the conductor mark on the ticket the position of the arrow as it stands on the dial of the omnibus, so that by comparing one with the other when the passenger arrives at his destination, the distance may be instantly ascertained, and no cheating whatever can be carried on.—SID.

RATING OF RAILWAYS.—The parish of St. Pancras, under the direction of Mr. Pinfold, and other practical gentlemen, are, it appears, determined to try their strength in the enforcement of a rate against the London and North-western Railway Company, upon an estimated rateable value at the Euston and Camden stations of 34,000l.—*Railway Record.*

METROPOLITAN SEWERS COMMISSION.—A court was held on Wednesday last, in Greek-street, Mr. Lawes in the chair, when tenders were opened for sewage works in Shrubland-place, Dalston, for which Mr. Hill's tender for 352l. was accepted. Other works were referred to the engineer, in consequence of the close approximation of the amounts of tender. Capt. Dawson's motion, that the expenses of the sewage works in Dacre-street, Lee, Kent, should be wholly charged upon the district rate, was put and carried. A large number of works were then ordered.

ROAD-MAKING.—The following tenders were received in answer to an advertisement in THE BUILDER, for roads at Bromley.—J. Y.

|                        |          |
|------------------------|----------|
| Clark .....            | £480 0 0 |
| Moore .....            | 272 0 0  |
| Colson .....           | 244 10 0 |
| Waller .....           | 240 0 0  |
| Scrymgeour .....       | 210 0 0  |
| Stevens .....          | 189 0 0  |
| Hartland .....         | 187 4 0  |
| Beeles .....           | 185 0 0  |
| Lovett .....           | 173 0 0  |
| Murray .....           | 148 0 0  |
| Moram (accepted) ..... | 145 0 0  |
| M'Kay and Morgan ..... | 117 17 6 |

(and extra for gravel).